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DESCRIPTORS *Annotated Bibliographies, *Audiovisual Aids, Community Resources, Conservation Education, Ecology, Elementary Grades, *Environmental Education, Films, Filmstrips, *Instructional Materials, Natural Resources, Pollution, Resource Guides, Secondary Grades, *Social Problems

ABSTRACT

This guide to resource materials on environmental education is in two sections: 1) Selected Bibliography of Printed Materials, compiled in April, 1970; and, 2) Audio-Visual materials, Films and Filmstrips, compiled in February, 1971. 99 book annotations are given with an indicator of elementary, junior or senior high school levels. Other book information includes: publisher, copyright date, price, and Dewey Decimal classification. Also listed in this section are six periodicals and some free and inexpensive materials such as pamphlets, government documents, and bibliographies. Audiovisual aids are also arranged by level: primary, intermediate, and junior or senior high school. This last section for secondary grades is subdivided into specific topics: 1) Man and Natural Resources, 2) Population Explosions, 3) Problems of the Cities, 4) Pollution, and 5) Relationship of Man to Communities. A brief content annotation is given as well as running time, color, producer, copyright data (when available), rental fee and film order number from the University of Minnesota. Appended is a list of nine additional Audiovisual Rental Sources and addresses of 27 film companies. (Author/JSB)

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U.S. DEPARTMENT OF HEALTH,
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SELECTED BIBLIOGRAPHY FOR ENVIRONMENTAL EDUCATION

BOOKS

Allen, Durward L. THE LIFE OF PRAIRIES AND PLAINS. (Our Living World of Nature Series). McGraw-Hill, 1967. $4.95 (574.5)
Evolution of various forms and descriptions of animal behavior. Cultural history of man included. J-S

Amos, William H. THE LIFE OF THE POND. (Our Living World of Nature Series). McGraw-Hill, 1967. $4.95 (574.5)
Formation, growth, natural destruction of a pond and its myriad of inhabitants. Appendix includes comprehensive instructions for amateur investigators of all ages. J-S

Anderson, Edgar. PLANTS, MAN AND LIFE. University of California, Berkeley, 1967. $6.50 (581.5)
Origin and probable history of sunflowers, maize, tomatoes, spiderworts and other plants and weeds which have filled the niches disturbed by man. Demonstrates man's impact on environment. S

Arbital, Samuel L. CITIES AND METROPOLITAN AREAS. Creative Educational Society, 1967. $5.95 (301.36)
Brief commentary on the historical development of cities is followed by a discussion of the causes and effects of recent city growth in the U.S., specific problems, and accounts of redevelopment and urban renewal programs. 5-9

Aylesworth, Thomas G. THIS VITAL AIR, THIS VITAL WATER: MAN'S ENVIRONMENTAL CRISIS. Rand McNally, 1968. $4.95 (614)
Analysis of hazards of solids, gases and radioactive particles in the air, filth in the sea, sewage and industrial pollution, noise volume and over-population. 7-10

Bernarde, Melvin A. RACE AGAINST FAMINE. Macrae, 1968. $4.75 (338.19)
Need for more production of nutritious food, use of new farming methods including sea farming, manufacture of protein-rich food concentrates in order to prevent large-scale famine. 6-up

Berrill, Norman J. INHERIT THE EARTH: MAN ON AN AGING PLANET. Dodd, 1966. $5.00 (301)
Subjects range from genetic code and its implication for the future to formation of the continents and the planets. Philosophical position of dominant aging man on an aging planet. J-S

Berrill, Norman J. LIFE OF THE OCEAN. (Our Living World of Nature Series). McGraw-Hill, 1966. $4.95 (574.5)
Ecology of ocean life. E-J

Bixby, William. OF ANIMALS AND MEN: A COMPARISON OF HUMAN AND ANIMAL BEHAVIOR. McKay, 1968. $3.95 (596.05)
Author concludes that mankind is insane as evidenced by man's proclivity for using animals and all natural resources as he pleases, the human breeding rate, and the violent destruction of men by men. S

Blake, Peter. GOD'S OWN JUNKYARD: THE PLANNED DETERIORATION OF AMERICA'S LANDSCAPE. Holt, 1964. $4.50; paper, $2.95 (333.72)
Angry attack on man's destruction of the natural beauty of the landscape. J-S

Borgstrom, Georg. THE HUNGRY PLANET: THE MODERN WORLD AT THE EDGE OF FAMINE. Macmillan, 1967. $7.95; paper, $2.95 (338.19)
Nutrition problems of the various areas of the world. S

Borgstrom, Georg. TOO MANY: THE BIOLOGICAL LIMITATIONS OF OUR EARTH. Macmillan, 1969. $7.95 (338.1)
Forecasts world starvation unless drastic measures are adopted including population control, rechanneling of food distribution and development of new sources of supply. S

Briggs, Peter. WATER: THE VITAL ESSENCE. Harper, 1957. $5.95; library ed., $5.23 (551.46)
Pulls together a wide range of information on water. Considers the problem of adequate supplies of fresh water, efforts of the Public Health Service to control contamination, work of the Corps of Engineers and Bureau of Reclamation. J

Bronson, William. HOW TO KILL A GOLDEN STATE. Doubleday, 1968. $6.95 (333.72)
Documentation of pollution and destruction of California by smog, billboards, trash, meretricious architecture, insecticides, waterway reclamation and scandalous timbering practices. Locale is California, problem is nation wide. E-S

Brooks, Maurice. THE LIFE OF THE MOUNTAINS. (Our Living World of Nature Series). McGraw, 1967. $4.95 (574.9)
Trees, flowers, insects, birds, and mammals found at various altitudes. Physical geology and ecology. E-J

Bush-Brown, Louise (Carter). GARDEN BLOCKS FOR URBAN AMERICA. Scribners, 1969. $10.00 (712.6)
Beautification project from 1953 to 1963 in inner city of Philadelphia. Guidelines for projects are included. S

Callison, Charles H. AMERICA'S NATURAL RESOURCES. Rev. ed. Ronald, 1967. $5.00 (333.72)
Essential background material which shows clearly that all resources must be managed in relation to the whole environment. S

Carefoot, Garnet L. & Sprott, Edgar R. FAMINE ON THE WIND: MAN'S BATTLE AGAINST PLANT DISEASE. Rand McNally, 1967. $5.95 (338.19)
Food production can keep pace with population growth on the condition that more water be provided, barren lands irrigated and fertilized, tropical jungle cleared, resources harvested from the sea, and battle against fungi, bacteria and viruses be won. S

Carlson, Carl W. & Carlson, Bernice W. WATER FIT TO USE. Day, 1966. Library Ed., $3.86 (627)
Conservation, utilization and management of water resources. Needs of domestic water supplies, power production and industry are presented. J-S

Carr, Donald E. THE BREATH OF LIFE. Norton, 1965. $4.95 (614)
Automotive smog, disasters involving air pollution, and effects of pollution on assorted respiratory diseases. J-S

Carr, Donald E. DEATH OF THE SWEET WATERS. Norton, 1966. $5.95 (614)
Water pollution, limited action taken by government and industry to eliminate pollution, and consequences of contined inaction. J-S

Carson, Rachel. SILENT SPRING. Fawcett, 1969. Paper, 95¢ (632)
This is a reissue of the book which first focused attention on the deadly properties of DDT. Every library should already have this. J-S

Clark, Colin. POPULATION GROWTH AND LAND USE. St. Martin's, 1967. $14.00 (338.19)
Population growth in relation to medical, historical, econimic, biological and sociological factors. S

Commoner, Barry. SCIENCE AND SURVIVAL. Viking, 1966. $4.50 (501)
Danger of large scale technology without regard to consequences. S

Curtis, Richard & Hogan, Elizabeth. PERILS OF THE PEACEFUL ATOM: THE MYTH OF SAFE NUCLEAR POWER PLANTS. Doubleday, 1969. $4.59 (614.75)
Examination of possibilities and potential consequences of disasters at reactor and other atomic facilities. 9-12

Darling, F. & Milton, John P., eds. FUTURE ENVIRONMENTS OF NORTH AMERICA. Natural History, 1966. $12.50 (333.9)
Preservation and development of primeval, communal, domesticated and urban habitats. S

Darling, Lois & Louis. PLACE IN THE SUN: ECOLOGY AND THE LIVING WORLD. Morrow, 1968. $3.95 (574.5)
Photosynthesis, food chains, nutrient cycles, and other factors. Man's relationship with nature and the use of pesticides and deforestration. J-S

Dasmann, Raymond F. A DIFFERENT KIND OF COUNTRY. Macmillan, 1968. $5.95 (574.5)
Man's relationship to his environment amid physical and political forces that are shaping and reshaping a constantly changing world. "The book is a must for every reference shelf on conservation and the human environment." Choice

Dasmann, Raymond F. ENVIRONMENTAL CONSERVATION. 2nd ed. Wiley, 1968. $8.95 (574.5)
Originally designed as a college text. Includes recent federal legislation in resource management and pollution control. S

DeBell, Garrett, ed. THE ENVIRONMENTAL HANDBOOK. Ballantine, 1969. 95¢ (574.5)
A collection of essays prepared for the first national environmental teach-in on April 22, 1970. The first section defines the issues, the remainder describes individual and political action. S

Dubos, Rene J. SO HUMAN AN ANIMAL. Scribners, 1970. $6.95; paper, $2.25 (301.3)
Linking biology, psychology and philosophy, examines life in relation to genetic endowment and total environment and concludes that a new social ethic is needed to counteract the destructive forces of modern technology. S

Dumont, Rene & Roseir, Bernard, THE HUNGRY FUTURE. Tr. from the French by Rosamund Linell and R. Sutcliffe. Praeger, 1969. $6.95 (338.1)
Prevalence of hunger thrcughout the world, accompanied by alternatives to curb a famine forecast by the authors for 1980. Agricultural methods are carefully scrutinized. FAO is spotlighted. S

Ehrlich, Paul R. THE POPULATION BOMB. Ballantine, 1968. $2.95 (301.32)
Problems of rapidly expanding population, danger of food shortages, weaknesses of attempts to control births. Will serve as a stimulus for discussions. S

Ewald, William R. Jr., ed. ENVIRONMENT FOR MAN: THE NEXT FIFTY YEARS. Indiana University Press, 1967. $6.95; paper, $2.95 (574.5)
Inquiry into the quality of life as it may be lived in the city of tomorrow. S

Fabre-Luce, Alfred. MEN OR INSECTS? A STUDY OF POPULATION PROBLEMS. Horizon, 1965. $5.00 (312)
Improvement and understanding of population problems, in terms of economic and social development. S

Fisher, James & Others. WILDLIFE IN DANGER. Viking, 1969. $12.95 (599)
Based on the Red Data Books. Explains why and how species are threatened with extinction, why it matters and what can be done about it. Standard reference. S

Fisher, Tadd. OUR OVERCORWDED WORLD. Parent's Magazine Press, 1969. $4.50; library ed., $4.12 (301.32)
Brief history of population growth from prehistoric times to the present. Appraises the world food situation; and discusses the moral issues involved in regard to family planning. J-S

Fitter, Richard. VANISHING WILD ANIMALS OF THE WORLD. Watts, 1969. $7.95 (599)
Vanishing animals and why they vanish; survey of endangered animals by continents, description of animals which have been saved, discussion of how others may be saved. Appendices are lists of endangered species, national and international nongovernmental conservation organizations, bibliography of suggested reading. J-S

Gerking, Shelby D. BIOLOGICAL SYSTEMS. Saunders, 1969. $8.50 (574.5)
Includes discussion of man-made pollution and use of insecticides and other poisons. S

Gill, Crispin & others. THE WRECK OF THE TORREY CANYON. Taplinger, 1967. $4.50 (551.46)
Effects of the wreck and the oil on the beaches, the domestic problem, the effect on wildlife in the sea, efforts of the English and French to combat the oil, and the legal complications in terms of claims, international law and international action. "Should be read as a terrible example of man's failure to learn the lessons of technological history." Science Books S

Glenn, Harold T. GLENN'S AUTOMOTIVE SMOG CONTROL MANUAL. Cowles, 1968. $6.95 (614.71)
For car owners and officials concerned with automotive smog control. Contents cover pollutants from assorted crankcase and exhaust emissions, evaporative losses and their control, relevant servicing procedures; regulation through law as pioneered in California. S

Goldman, Marshall I., ed., CONTROLLING POLLUTION: THE ECONOMICS OF A CLEANER AMERICA. Prentice-Hall, 1967. Paper, $1.95 (628)
Economic aspects of water, air and scenic pollution. Specific chapters on Pittsburg, Lake Erie, and Ohio rivers. S

Graham, Frank J. DISASTER BY DEFAULT: POLITICS AND WATER POLLUTION. Evans, 1966. $5.95 (333.91)
Role played by pressure groups and their political friends, aided by public apathy in creating water pollution, ignoring its dangers and eluding needed legislation. S

Graham, Frank Jr. SINCE SILENT SPRING. Houghton, 1970. $6.95 (632)
Begins where Carson's SILENT SPRING ends. Cites cases and research on pesticides and concludes that scientists are not without their biases. S

Grossman, Mary L. & Hamlet, John N. OUR VANISHING WILDERNESS. Grosset, 1969. $14.95 (574.5)
Interrelationships within and among species are stressed. Man's alteration of habitats and biota are generally deplored. Photographs are excellent. J-S

Heady, Earl O. A PRIMER ON FOOD, AGRICULTURE AND PUBLIC POLICY. Random, 1968. $4.95; paper, $1.95 (338.11)
Food and farm problems related to local rural community, U.S. national policy, and the world's expanding needs. S

Helfman, Elizabeth. RIVERS AND WATERSHEDS IN AMERICA'S FUTURE. McKay, 1965. $4.95; library ed., $4.19 (333.72)
Significance of water control to people, agriculture, industry and wildlife of area. S

Highsmith, Richard M. & others. CONSERVATION IN THE UNITED STATES. 2nd ed. Rand McNally, 1969. $9.95 (333.7)
Supply, use, and management trends of our natural resources and projections for the future. S

Isenberg, Irwin, comp. THE CITY IN CRISIS. Wilson, 1968. $3.50 (301.36)
32 articles, cross section of public opinion on nature of problems confronting cities. No agreement on a long range comprehensive plan. General readers and students. S

Jepsen, Stanley M. TREES AND FORESTS. Barnes, 1969. $6.95 (634.9)
Plea for wise management of forests as natural resources providing continually the benefits of wood, water, wildlife, forage, soil stabilization and recreation. Over 125 photographs. S

Johnson-Marshall, Percy. REBUILDING CITIES. Aldine, 1966. $15.00 (711)
Need for regeneration in cities, urban planning and urban renewal. S

Kroeber, Theodora & Heizer, Robert F. ALMOST ANCESTORS: THE FIRST CALIFORNIANS. Sierra Club, 1970, $15.00 (970.54)
Commemoration of 50 vanished Indian tribes of CAlifornia. Photographs are reproduced from museum and other files. J-S

Landsberg, Hans H. NATURAL RESOURCES FOR U.S. GROWTH: A LOOK AHEAD TO THE YEAR 2000. Abridged ed. John Hopkins, 1964. Paper, $2.45 (333.9)
Abridged version of RESOURCES IN AMERICA'S FUTURE. Projected requirements of food, water, energy, and metallic resources and their availability. Land resources, urban and recreational needs are studied. S

Laycock, George. THE ALIEN ANIMALS: THE STORY OF IMPORTED WILDLIFE. Natural History Press, 1966. $4.95 (591.5)
Introduction of exotic birds, mammals, and fishes in the United States and the result. J-S

Laycock, George. AMERICA'S ENDANGERED WILDLIFE. Norton, 1969. $4.95; library ed., $4.51 (639.9)
Rare and endangered species of fish, reptiles, birds and mammals are listed with reasons for their threatened extinction and a discussion of what is being done. J-S

Laycock, George. WILD REFUGE. Natural History Press, 1969. $3.50 (639.9)
History of various National Wildlife Refuges and efforts of men involved in establishing and maintaining them. J-S

League of Women Voters. BIG WATER FIGHT. Stephen Greene Press, 1966. $6.95 (333.9)
Case histories of water resource problems. Outlines procedures which can be used by action groups in attacking problems of supply, pollution, floods and planning. S

Leopold, Aldo. A SAND COUNTY ALMANAC, WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER. Oxford, 1966. $6.50 (574.9)
Classic work of natural history. The author clearly demonstrates a love and respect for the land and the resources themselves. Highly recommended. S

Lillard, Richard G. EDEN IN JEOPARDY: MAN'S PRODIGAL MEDDLING WITH HIS ENVIRONMENT: THE SOUTHERN CALIFORNIA EXPERIENCE. Knopf, 1966. $6.95 (333.72)
Changes in population, water supply, agriculture, industry, architecture, transportation, topography, recreation and culture. S

Liston, Robert A. DOWNTOWN: OUR CHALLENGING URBAN PROBLEMS. Delacorte, 1968. $4.50 (711)
Condition of cities is result of decades of neglect, apathy, economic exploitation, and ignorance. Problem is defined not as poverty of resources but as our inability to marshall resources. S

McCormick, Jack. THE LIFE OF THE FOREST. (Our Living World of Nature Series). McGraw-Hill, 1966. $4.95 (574.5)
Plant and animal communities in the forests of North America. Basic ecological principles. E-S

McKee, Alexander. FARMING THE SEA. Crowell, 1969. $6.95 (333.9)
Work in progress all over the world. Traces research underway, and actual sea farming now being done. S

McMillan, Ian. MAN AND THE CALIFORNIA CONDOR; the embattled history and uncertain future of North American's largest free-living bird. Dutton, 1968. $5.95 (598)
Effects of bureaucratic administration and road building, land clearing, and development of new recreation areas on the condor. S

Marchant, Ronald A. MAN AND BEAST. Macmillan, 1968. $4.95 (596.05)
Man's relationship to animals from prehistoric times to the present. J-S

Marine, Gene. AMERICA THE RAPED: THE ENGINEERING MENTALITY AND THE DEVASTATION OF A CONTINENT. Simon & Schuster, 1969. $5.95 (333.72)
The endangering of natural resources through human stupidity or cupidity. Criticizes political and industrial power structures. S

Marx, Wesley, THE FRAIL OCEAN. Coward-McCann, 1967. $5.95 (551.46)
Pollution of the ocean. "Should be read by all adults and should be required collateral reading for students in biology and social science classes." Science Books S

May, Julian. THE BIG ISLAND: Illus. by John Schoenherr. Follett, 1968. $3.95; library ed., $3.99
Basic ecology of Isle Royale National Park in Lake Superior. E

Milne, Lorus J. & Milne, Margery. PATTERNS OF SURVIVAL. Prentice-Hall, 1967. $7.95 (591.5)
Structural, functional and behavioral adaptions interact with ecological factors to determine survival and population level. S

Montagu, Ashley, comp. MAN AND AGGRESSION. Oxford, 1968. Paper, $1.95 (152.43)
Selected articles which refute idea that man is instinctively agressive. S

Montagu, Ashely. MAN OBSERVED. Putnam, 1968. $6.95 (901.9)
Man has lost the feeling of responsibility toward society and nature, so that overpopulation, drug addiction, crime, changes in personal and social values, and spoilation of wilderness areas have followed. S

Murphy, Robert. WILD SANCTUARIES: OUR NATIONAL WILDLIFE REFUGES--A HERITAGE RESTORED. Dutton, 1968. $22.50 (639.95)
Wanton exploitation of America's wildlife and extermination of certain species, followed by biological surveys and inventories. Establishment of wildlife refuges. J-S

Nash, Roderick. WILDERNESS AND THE AMERICAN MIND. Yale University Press, 1967. $6.50; paper, $1.95 (333.7)
Chronicles the American attitudes toward the wilderness from their beginnings in the Old World to the most recent legislation for preservation of wilderness areas. S

Navarra, John G. & others. WIDE WORLD WEATHER. Doubleday, 1968. $3.95 (551.15)
Scientific and social problems involved in collection, dissemination and interpretation of weather data on a global scale. Discusses practical aspects of weather, weather satellites, cloud seeding, weather modification and air pollution. 6-8

Nickelsburg, Janet. ECOLOGY: HABITATS, NICHES AND FOOD CHAINS. (Introducing Modern Science Series). Lippincott, 1969. $4.50 (574.5)
Characteristics of different climatic and microclimatic areas of the United States. J

Olson, Sigurd F. OPEN HORIZONS. Knopf, 1969. $5.95 (977.6)
Autobiography of one of the leaders in preserving the wilderness. Recommended along with THE SINGING WILDERNESS, Knopf, 1956 $4.95 and LISTENING POINT, Knopf, 1958, $4.95. J-S

Overman, Michael. WATER: SOLUTIONS TO A PROBLEM OF SUPPLY AND DEMAND. (Doubleday Science Series), 1969. $5.95; paper, $2.45 (628.1)
Information on dams, irrigation, hydrologic cycle, hydroelectric power, desalination and pollution. Illustrated with diagrams and photographs. J-S

Park, Charles F. Jr. AFFLUENCE IN JEOPARDY: MINERALS AND THE POLITICAL ECONOMY. W.H. Freeman, 1968. $9.50 (333.8)
Review of the importance of minerals; political roles played by the mining industry, strategy of exploration and extraction. Broad base makes the books usable for general reading. S

Pell, Claiborne. MEGALOPOLIS UNBOUND: THE SUPER CITY AND THE TRANSPORTATION OF TOMORROW. Praeger, 1966. $6.95 (620)
Problems of transport and mobility in such areas as the Boston-New York-Washington strip city. J-S

Perry, John. OUR POLLUTED WORLD: CAN MAN SURVIVE? Watts, 1967. $4.95 (551.46)
Pollution is regarded as a product of society. Survey of legislative difficulties in controlling and correcting bad practices. J-S

Reinow, Robert & Rienow, Leona T. MOMENT IN THE SUN: A REPORT ON THE DETERIORATING QUALITY OF THE AMERICAN ENVIRONMENT. Ballantine, 1967. 95¢ (333.7)
Report on the overpopulation and overexploitation of the environment. Considers the credibility gap between Federal agencies conducting research on chemicals used in the food industry and the consumer. More current and inclusive then Lillard's EDEN IN JEOPARDY, Carson's SILENT SPRING, and Osborn's OUR PLUNDERED PLANET. Highly recommended. S

Robinson, Carmelita K. & others. LIFE IN A POND; illus. by Marjorie Hartwell. Golden Press, 1967. $3.95 (574.5)
Life of the pond as an ecological unity. E

Sears, Paul B. LANDS BEYOND THE FOREST. Prentice-Hall, 1968. $7.95 (574.5)
Emphasis is on the grasslands and how they were peopled and what they added to man's stature. Ends with questions about where man is going, since he has largely abandoned the open countryside. S

Sears, Paul B. THE LIVING LANDSCAPE. Basic, 1966. $4.95 (574.5)
Stresses the unity of science and the unity of man and nature. S

Shepard, Paul & McKinley, Daniel. THE SUBVERSIVE SCIENCE: ESSAYS TOWARD AN ECOLOGY OF MAN. Houghton, 1969. $8.95 (501)
Evolution of human behavior, population dynamics, pesticides, urban planning and environmental ethics. S

Shuttlesworth, Dorothy E. CLEARN AIR--SPARKLING WATER: THE FIGHT AGAINST POLLUTION. Doubleday, 1968. $3.95 (333)
Tells what an individual can do in the struggle against pollution. 3-5

Smith, Frances C. THE FIRST BOOK OF SWAMPS AND MARSHES. Watts, 1969. $2.95; library ed., $1.98 (574.5)
Presents elementary information about bogs, swamps, marshes and estuaries, conditions brought about by commercial exploitation or ignorant abuse of these areas and consequent destruction of vegetation and wildlife. E

Smith, Frank E. POLITICS OF CONSERVATION. Pantheon, 1966. $5.95 (333.72)
Failure of leadership in controlling pork barrel politics in the field of natural resources. S

Stewart, George R. NOT SO RICH AS YOU THINK. Houghton, 1968. $5.00 (614)
Waste disposal results from four causes, increase of population, growth of cities, development of the affluent society and the invention of synthetic technology. Net result: Every molecule of waste and residue incurs the expense of getting rid of it. J-S

Still, Henry. THE DIRTY ANIMAL. Hawthorn, 1967. $5.95 (628)
More than 50% of the American population lives in constant air pollution. The role of the automobile and urban congestion are clearly defined. An abatement program for both individuals and industry is suggested. J

Taylor, Gordon R. THE BIOLOGICAL TIME BOMB. World, 1968. $5.50; paper, $1.25 (577)
Sex, hormonal experimentation, prolongation of youth, mind control, genetic surgery, gene warfare and articifical creation of life. Solution is that biological control must be planned immediately. S

Udall, Stewart L. 1976 AGENDA FOR TOMORROW. Harcourt, 1968. $3.75 (309.17)
Plea to man to rescue himself from destruction of his habitat. Recommends complete physical and administrative reorganization of the cities, with population control and conservation in key roles. S

U.S. Department of Agriculture. SCIENCE FOR BETTER LIVING. 1968 yearbook of the U.S. Department of Agriculture. Washington, GPO, 1968. $3.00 (630)
Research activities dedicated to improving quality and quantity of food production, clothing and shelter. "Indespensible to library collection." Science books J-S

U.S. Department of Agriculture. OUTDOORS USA. Jack Hayes, ed. GPO, 1967. $2.75 (333.72)
Anthology of information on resource conservation. J-S

Van Dersal, William R. THE LAND RENEWED. rev. ed. Walck, 1968. $6.00 (631.4)
Overall perspectives of the need for and practice of conservation techniques. Emphasis on soil conservation. J-S

VANISHING PEOPLES OF THE EARTH. Foreward by Leonard Carmichael. National Geographic, 1969. $4.55 (910.03)
Explores disappearing traditions among tribes in process of rapid and dramatic change in face of encroaching civilization. Peoples visited are the Lapps, the Bushmen of the Kalahari, the Nilgiri peoples of India, Japan's Ainu, Australian aborigine Eskimos, Indians of Central Brazil, Hopi Indians and the New Guiniea Asmat cannibals. E-J-S

Whyte, William H. Jr. THE LAST LANDSCAPE. Doubleday, 1968. $6.95 (711)
City planning to save small open areas through improved tax techniques and the defeat of speculators. Favors working with present conditions, not building new cities. S

Winter, Ruth. POISONS IN YOUR FOOD. Crown, 1969. $5.95 (614)
Accidental and deliberate contamination of food with pesticides and food additives. S

Wise, William, KILLER SMOG: THE WORLDS WORST AIR POLLUTION DISASTER. Rand McNally, 1968. $5.95 (614)
Journalistic account of the London smog episode of December, 1952. Identifies the causes of air pollution and its effects. S

Young, Louise B., ed. POPULATION IN PERSPECTIVE. Oxford University Press, 1968. $10.00; paper, $4.95 (301.3)
Collection of 65 essays on the biological, social (religious, political and econimic) factors. Includes philosophers, novelists, and poets as well as economists. S

PERIODICALS

BIOSCIENCE. American Institute of Biological Sciences, 3900 Wisconsin Ave., N.W., Washington, D.C. 20016 Monthly $12.00 a year.
Emphasis is on application of biological sciences to man's living conditions, i.e. hunger, pollution, pesticides. Written in popular style. For senior high schools to develop an awareness of the importance of the field of biological sciences and interest in it. S

ENVIRONMENT. Committee for Environmental Information, 438 N. Skinner Boulevard, St. Louis, Mo. 63130. 10 issues $8.50
Devoted to all issues affecting the environment. Many of the contributors have outstanding reputations in their fields. S

ENVIRONMENTAL EDUCATION. Dembar Educational Research Service, Box 1605, Madison, Wisconsin 53701. Quarterly $7.50 Student rate, $4.75
Research and development in conservation communications. The magazine began in the fall of 1969. For mature students and teachers.

FAO REVIEW. Food and Agriculture Organization of the United Nations. Bimonthly, $2.50

"A well printed, beautifully illustrated journal, this is concerned with studies of hunger and poverty throughout the world...Particularly useful for information on activities in smaller countries. Should prove popular for browsing and as a source of reliable material for student papers." Magazines for School Libraries S

MINNESOTA MUNICIPALITIES. League of Minnesota Municipalities, 314 Social Science Building, University of Minnesota, Minneapolis, Minn. 55455. Monthly $3.50 Order direct.

Describes planned and completed municipal projects in Minnesota towns and cities. Articles discuss and offer solutions to community problems. S

NATION'S CITIES. 1612 K St., N.W., Washington, D.C. 20006. Monthly $6.00 a year

Short articles on transit facilities, urban design, area planning, water supply housing projects, slum clearance, and racial riots. Official publication of the National League of Cities. For senior high.

FREE AND INEXPENSIVE MATERIALS

The materials listed are representative of items available. A more complete selected list will be issued later.

BIBLIOGRAPHIES

Environmental Science Center, 5400 Glenwood Ave., Minneapolis, Minn. 55422. Free.

ENVIRONMENTAL INFORMATION SOURCE GUIDE AND BIBLIOGRAPHY.

A guide to free and inexpensive materials available from industry and governmental agencies. Many Minnesota sources are indicated.

LIST OF PAPERBACKS OR OTHERWISE INEXPENSIVE VOLUMES ON ENVIRONMENT AND CONSERVATION.

Annotated bibliography for high schools and adults.

LIST OF AVAILABLE CURRICULUM MATERIALS AND TEACHING UNITS.

Minnesota State Publications, Documents Section, Room 140, Centennial Building, St. Paul, Minnesota 55101. Free

MINNESOTA STATE PUBLICATIONS CATALOG.

State Technical Information Service, 406 Walter Library, University of Minnesota 55455.

Peck, Theodore P. POLLUTION CONTROL, AN INFORMATION SOURCE GUIDE FOR INDUSTRY. Agricultural Extension Service, University of Minnesota Special Report 35. 1970. Free

A guide to governmental and nongovernmental agencies interested in pollution and selective literature of a technical nature.

PAMPHLETS

Hugh Moore Fund, 60 East 42nd St., New York, N.Y. 10017 Free

FAMINE STALKS THE EARTH...THE POPULATION BOMB KEEPS TICKING.

Small booklet compares population, birth and death rates, the possibility of increasing food production, means of lowering the birth rate.

Izaak Walton League of America, 1326 Waukegan Road, Glenview, Illinois 60025 Free.

CLEAN WATER: IT'S UP TO YOU.

Background on pollution laws, water quality standards, enforcement of the standards, action to be taken by individual citizens. Checklists of agencies and organizations concerned with pollution.

Metro Clean Air Committee, 1829 Portland Ave., Minneapolis, Minn. 55404 333-5463

JOIN THE METRO CLEAN AIR COMMITTEE. flyer free

MINNESOTA AIR QUALITY REGULATIONS. 15¢ each

AIR POLLUTION: THE FACTS. 1¢ in quantity flyer

NEEDED: CLEAN AIR: THE FACTS ABOUT AIR POLLUTION. 9¢ each 15 p. cartoon type booklet

National Wildlife Federation, Educational Servicing Section, 1412 16th St. N.W., Washington, D.C. 20036

BY WHICH WE LIVE. Single copy free, additional copies 25¢

Collection of essays and articles on the basic problems of resource conservation.

THE PUBLIC'S LAND--OUR HERITAGE AND OPPORTUNITY. Single copy free, additional copies 10¢

Easy to read summary of public land management.

THE CASE AGAINST "HARD" PESTICIDES. Single copy free, additional copies 10¢

Makes a case against the use of clorinated hydrocarbon pesticides.

ESTUARIES--AMERICA'S MOST VULNERABLE FRONTIERS. Single copy free, additional copies 10¢

Traces the historical background of wetlands drainage in the United States and emphasized the importance of preserving remaining estuarine areas along the coastline.

AMERICA'S SHAME--WATER POLLUTION. Single copy free, additional copy 5¢

Problems, progress and what the individual can do to help.

GOVERNMENT DOCUMENTS

Unless another source is indicated, all government documents may be ordered from the U.S. Department of Commerce, 306 Federal Courts Building, 110 South 4th Street, Minneapolis, Minn. 55401. Orders should be prepaid.

Citizen's Advisory Committee on Recreation and Natural Beauty, 1700 Pennsylvania Ave., Washington, D.C. 20006. Single copy free from the committee.

CITIZEN MANUAL FOR COMMUNITY ACTION. Government Printing Office, 1968. 40¢.

Covers action for open space and recreation, landscape, cleaning the air, and procedures for action.

Federal Water Pollution Control Administration, U.S. Department of the Interior, Washington, D.C. 20402. Single copies may be ordered free from the above address. Additional copies must be ordered from the Government Printing Office at the price indicated.

SHOWDOWN. Government Printing Office, 1968. 15¢

Illustrates the need for water pollution control and presents federal programs.

A PRIMER ON WASTE WATER TREATMENT. Government Printing Office, 1969. 55¢

Basic techniques of converting waste water to usable water for drinking and industrial purposes.

POLLUTION CAUSED FISH KILLS, 1968. Government Printing Office, 1969. 30¢

Includes reports of fish kills in Minnesota.

WHAT YOU CAN DO ABOUT WATER POLLUTION. Government Printing Office, 1957. 15¢

Steps for the individual citizen.

HEAT CAN HURT: BETTER WATER FOR AMERICA. Government Printing Office, 1969.
ESTUARIES...CRADLES OR GRAVES. Government Printing Office, 1969.
WATER QUALITY STANDARDS: BETTER WATER FOR AMERICA. Government Printing office, 1969.

Frief statements of the problem and the choices available.

President's Council on Recreation and Natural Beauty.

FROM SEA TO SHINING SEA: A REPORT ON THE AMERICAN ENVIRONMENT--OUR NATIONAL HERITAGE. Washington, U.S. Printing Office, 1968. $2.50

Outline of environmental improvement programs since 1965 and present proposals to stimulate action. Extensive bibliography is included.

President's Panel on Oil Spills, 1969.

FIRST REPORT, THE OIL SPILL PROBLEM. Government Printing Office, 1969. 35¢

Discusses the oil spill problem, gives recommendations for combating and avoiding large oil spills.

SECOND REPORT. OFFSHORE MINERAL RESOURCES, A CHALLENGE AND AN OPPORTUNITY. Government Printing Office, 1969. 30¢

Evaluation of offshore resources, central planning, principles of multiple use, pollution and safety.

U.S. Department of Agriculture.

SOIL, WATER AND SUBURBIA. Government Printing Office, 1967. $1.25

Report of a conference on suburbs sponsored by the Department of Agriculture and Department of Housing and Urban Development.

A GUIDE TO NATURAL BEAUTY. Government Printing Office. 35¢
Suggestions for building and preserving natural beauty in the community and countryside.

U.S. Department of Commerce.
THE AUTOMOBILE AND AIR POLLUTION: A PROGRAM FOR PROGRESS. Part I and II. Government Printing Office, 1967. $1.60
Part I. Report on panel on electrically powered vehicles. 60¢
Part II. Subpanel reports. $1.00

U.S. Department of the Interior. Office of the Secretary.
IT'S YOUR WORLD...THE GRASSROOTS CONSERVATION STORY. Government Printing Office, 1969. $2.00
MAN--AN ENDANGERED SPECIES. Government Printing Office, 1968. $1.75
THE THIRD WAVE. Government Printing Office, 1967. $2.00
THE POPULATION CHALLENGE. Government Printing Office, 1966. $4.00
Published as a conservation yearbook to demonstrate the Department's role in natural resources. The first section of each highlights the problems that exist, the last shows the action being taken. Full color photographs.

U.S. Public Health Service.
NO LAUGHING MATTER, THE CARTOONIST FOCUSES ON AIR POLLUTION. Government Printing Office, 1966. 70¢
Sixty cartoons which have appeared in the leading newspapers of the country.

U.S. Water Resources Council.
NATION'S WATER RESOURCES. Government Printing Office, 1968. $4.25

White House Conference on Natural Beauty.
BEAUTY FOR AMERICA. Government Printing Office, 1965. $2.75
Topics included: parks and open spaces, water and waterfronts, suburbia, farm landscapes and highways and related problems.

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State of Minnesota
Department of Education
Division of Instruction

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AUDIOVISUAL MATERIALS FOR

ENVIRONMENTAL EDUCATION

ED021028

INTRODUCTION

This list of audiovisual materials was prepared to accompany the pilot curriculum in environmental education. Since the curriculum is being taught as part of already existing subject areas, teachers will find that many of the suggested films are already familiar to them. The majority of the films listed are available from the University of Minnesota, or from state or federal agencies. Addresses of all agencies are given at the end of the list.

Supplemental lists of films and other materials may be located in several sources. The March 1970 issue of the Audiovisual Journal from the University of Minnesota contains a list of films on ecology, conservation and pollution. Film reviews and descriptions are regularly carried in most professional journals in the audiovisual and library fields.

Film copyright dates are not always given in film catalogs. Schools using NICEM's Index to 16mm Educational Films and its companion volumes will be able to verify copyright dates of most audiovisual materials. Some materials, particularly those which illustrate the life history of an animal, are still usable despite an older copyright. Previewing will quickly establish the suitability of a film which may be in question due to its age.

Teachers are reminded that there is no substitute for previewing films. The impact made by the film will depend on the amount of preparation done by the teacher. When previewing the films, the teacher should note items such as authenticity, appropriateness, scope, interest, organization and technical aspects.

A film being considered for purchase must be evaluated in terms of the cost involved for purchase, replacement, repair, storage, etc. No judgments on the value of purchasing any of the 16mm films on this list were made. All of the filmstrips have been evaluated or reviewed in several sources and are recommended for purchase.

The bibliography is arranged by primary, intermediate and junior-senior high school levels. The last section is subdivided into five parts: Man and Natural Resources, Population Explosions, Problems of the Cities, Pollution and Relationship of Man to Communities.

Abbreviations used in the bibliography are as follows:

i	intermediate
j	junior high
s	senior high
c	college
a	adult

PRIMARY GRADES
FILMS

It has been impossible to preview all of the films listed here, but many of them are already familiar to teachers. In general, the films are all less than 15 minutes in length and are designed particularly for primary grade children. A few films, important because of their subject matter, but designed for an upper grade level, have been included. The teacher's judgment of the maturity of her class will be the most important guide in determining if these films could be profitably used.

All films listed in this section are available from the University of Minnesota. When ordering films, please use the film order number which has been included.

AIR AND WHAT IT DOES.(2P0003) 11 min. b & w Produced by EB. 1962
How air moves, expands, contracts and exerts pressure. Usefulness in everyday activities. Rental $2.00

ANIMAL COMMUNITIES AND GROUPS. (3N0320) 11 min. b & w Produced by Coronet. 1963.
Division of animal kingdom into those who live in groups (elk, beaver, quail) and those who live in communities (honeybees,ants, termites) Rental $2.00

ANIMALS AND THEIR FOODS. (2N0328) 11 min. b & w Produced by Coronet.1955
Animals are divided into plant eaters, meat eaters, and those that eat both. Rental $2.00

ANIMALS AND THEIR HOMES. (2N0329) 11 min. b & w Produced by Coronet. 1955
Discusses the location of the home, materials used, and type of protection given. Includes duck, grebe, beaver, stickleback, rabbit, horned lark, robin, eagle, squirrel, gopher, prairie dog, wasp and cliff swallow. Rental $2.00

ANIMALS ARE DIFFERENT AND ALIKE (3N0331) 11 min. color Produced by Coronet. 1965
Ways to distinguish between animals that have backbones and those that do not. Rental $2.00

ANIMALS AT NIGHT. (3N0332) 11 min. color Produced by EB. 1963
How nocturnal animals differ in behavior from animals that are active during the day. Rental $3.25

ANIMALS IN AUTUMN. (3N0335) 11 min. color Produced by EB. 1957
Changes which take place in animals during the seasons of the year. Rental $3.25

ANIMALS IN SPRING. (3N0337) 11 min. color Produced by EB. 1955
Shows birds and animals and their nesting habits: salamander, fish,blue-bird, robin, rabbit,quail, and squirrel. Rental $3.25

ANIMALS MOVE IN MANY WAYS. (3NO340) 11 min. color Produced by Film Associates. 1958
Close-up photography of how animals move. Rental $3.25

ANIMALS OF THE DESERT. (5NO342) 12 min. color Produced by Bailey. 1964
Points out adaptations for self-preservation in desert. Rental $4.75

ANIMALS PROTECT THEMSELVES. (2NO344) 10 min. b & w Produced by Coronet. 1960
Common animals are observed to determine how they protect themselves. Rental $2.00

ANIMALS - WAYS THEY EAT. (2NO349) 11 min. b & w Produced by EB. 1956
Demonstrates the way that body parts of various animals are related to eating habits. Rental $2.00

ANIMALS - WAYS THEY MOVE. (2NO350) 10 min. b & w Produced by EB.
Explains how an animal's movement helps it escape its enemies and survive. Rental $2.00

BEETLES: BACKYARD SCIENCE. (3NO734) 10 min. color Produced by Film Associates. 1967
Characteristics distinguishing one beetle from another, and instructions on how to raise beetles. Rental $3.65

BIG LAND ANIMALS OF NORTH AMERICA. (2NO362) 11 min. b & w Produced by EB. 1956
Features mountain sheep and goats, deer, elk, moose, caribou, buffalo and bears. Rental $2.00

BILLY'S USEFUL INSECTS. (3NO363) 11 min. color Produced by Tompkins Films. Date unknown
Pictures the dragon fly and its nymph, ladybird beetle, crab spider and the praying mantis. Rental $3.25

BIRD HOMES. (3NO365) 11 min. color Produced by EB. 1957
Types of materials used for nest building and location of nests. Rental $3.25

BIRDS: HOW WE IDENTIFY THEM. (3NO367) 10 min. color Produced by Coronet. 1960
Distinguishing birds from another by appearance, sounds, and their actions. Rental $3.25

BIRDS OF THE INLAND WATERWAYS. (3NO590) 2d. ed. 10 min. color Produced by Coronet. 1965
Features loon, old-squaw, mallard, shoveler, spotted sandpiper, osprey, snowy egret and cattle egret. Rental $3.25

BIRDS OF THE MARSHES. (3NO591) 2d ed. 10 min. color Produced by Coronet. 1965
Features red-wings, yellow throat and least bittern, purple gallinule, black tern and grebe. Rental $3.25

CRY OF THE MARSH. (5NO955) 12 min. color Distributed by Bill Snyder. 1970
A hauntingly beautiful and disturbing film. Teachers should preview and use with care. Rental $4.85

EARTHWORMS. (3NO680) 11 min. color Produced by Pat Dowling Pictures. 1957
Stresses the adaptation of the worm to life underground. Rental $3.25

FISH FAMILY. (3S0028) 10 min. color Produced by Moody Institute of Science. 1957
Shows a complete cycle in raising a fish family. The fish are Blue Acaras. Rental $3.25

FROGS AND TOADS. (2NO387) 11 min. b & w Produced by McGraw. 1956
Adaptations for food-getting and self-protection. Portrays the life cycle of frogs and toads. Intermediate. Rental $2.00

GRAY SQUIRREL. (2NO390) 2d ed. 10 min. color Produced by EB. 1961.
Follows three young squirrels during their spring and summer activities. Rental $3.25

HOW AIR HELPS US. (2P0064) 11 min. b & w Produced by Coronet. 1963
Two boys discover the different ways that air helps us. Designed to aid students in developing observation. Rental $2.00

HOW ANIMALS LIVE IN WINTER. (2NO396) 11 min. b & w Produced by Coronet. 1956
Snowshoe rabbit, raccoon, badger, skunk and deer are featured. Concepts include protective coloration, migration, and hibernation. Rental $2.00

HOW BIRDS HELP US. (2S0052) 11 min. b & w Produced by Coronet. 1957
Birds are observed providing us with food, destroying insects and rodents, eating weed seeds and bringing pleasure with their songs. Rental: $2.00

HOW PLANTS GROW. (5NO096) 11 min. color Produced by Cenco Educational Films. 1964
Purpose of each part of the plant is described. Rental $4.75

HOW PLANTS HELP US. (2NO097) 11 min. b & w Produced by Coronet. 1954
Dependence of people on plants for food and clothing, for paper, rubber etc. are stressed. Rental $2.00

HOW TREES HELP US. (2NO570) 11 min. b & w Produced by Coronet. 1957
Wally learns trees supply lumber, food and materials. Rental $2.00

HOW WATER HELPS US. (2G0162) 11 min. b & w Produced by Coronet. 1957
Use of water in the home, as a source of food, for transportation, irrigation and recreation. Rental $2.00

HOW WEATHER HELPS US. (2G0419) 11 min. b & w Produced by Coronet. 1957
Relationship of weather to activities of people, plants and animals. Rental $2.00

LEARNING ABOUT FLOWERS. (3NO101) 10 min. color Produced by EB. 1957
Designed to help the student appreciate beauty in flowers. Rental $3.25

LEARNING ABOUT SEEDS. (3NO103) 10 min. color Produced by EB. 1960
Uses time-lapse photography to see how seeds grow and what they need for growth. Methods of seed dispersal are illustrated. Rental $3.25

LEARNING FROM PETS IN THE CLASSROOM. (5E0088) 15 min. color Produced by Journal Films. 1961
A how to keep animals in the classroom film. Rental $4.75

LET'S TAKE A WALK IN THE WOODS. (3NO573) 11 min. color Produced by Gateway Productions. 1956
Three boys are escorted on a hike by a forest ranger. They identify some trees, eat wild fruits and observe wildlife. Rental $3.25

LET'S TAKE A WALK TO THE MEADOW TO WATCH SOME BIRDS. (3NO574) 11 min. color Produced by Gateway Productions. 1957
Introduces the meadow and the life it supports. Rental $3.25

LET'S WATCH PLANTS GROW. (3NO406) 11 min. color Produced by Coronet. 1962
Students are introduced to experiments which determine what plants need for growth. Rental $3.25

LIFE IN AN AQUARIUM. (2NO411) 10 min. b & w Produced by McGraw. 1950
Explains how fish breathe under water, how fish use their tails and fins for movement, how snails move and protect themselves. Intermediate. Rental $2.00

LIFE IN THE FOREST. (3NO185) 11 min. color Produced by EB. 1955
Compares the forest to the city, which provides its residents with a wide variety of homesites. Forest is considered as a community. Intermediate. Rental $3.25

LIFE IN THE SEA. (3NO187) 15 min. color Produced by EB. 1958
Divides sea life into three general groups: plankton, bottom dwellers and free-swimming animals. Intermediate. Rental $3.25

LIFE ON A DEAD TREE. (3NO189) 10 min. color Produced by Film Associates. 1957
The tree is revealed as the home of many different plants and animals. Rental $3.25

LIFE STORY OF THE LADYBIRD BEETLE. (3NO417) 10 min. color Produced by EB. 1966
Life cycle is shown. Slow motion sequence shows the wings unfolding and the motion of the wings in flight. Intermediate. Rental $3.25

LITTLE ANIMALS. (3NO425) 11 min. color Produced by Pat Dowling Pictures. 1959
Designed to show that all animals are different and that some are very small. Rental $3.25

LIVING AND GROWING. (3NO426) 11 min. color Produced by Campus Film Productions. 1957
Compares requirements for young rabbits for growth with requirements for children. Rental $3.25

LIVING THINGS DEPEND ON EACH OTHER. (3NO925) 11 min. color Produced by EB. 1967
Interdependency between plants and animals. Shows plants are dependent on animals as well as on other plants. Rental $3.95

LOOKING AT FISHES. (3NO432) 11 min. color Produced by EB. 1965
Presents body shapes and structures of fish. Rental $3.25

LOOKING AT REPTILES. (3NO433) 11 min. color Produced by EB. 1965
Physical characteristics and behavior of five kinds of living reptiles are illustrated. Intermediate. Rental $3.25

MICHAEL DISCOVERS THE MAGNET. (2PO102) 11 min. b & w Produced by EB. 1955
Demonstrates what can be done with magnets. Rental $2.00

MR. AND MRS. ROBIN'S FAMILY. (2NO579) 11 min. b & w Produced by Coronet. 1957
Shows how activities of the robins follow the seasons. Rental $2.00

MOTHER DEER AND HER TWINS. (2NO436) 10 min. b & w Produced by EB. 1959
How the mother deer cares for her babies, how she protects them and how fawns learn to care for themselves. Rental $2.00

ONE RAINY DAY. (2LO086) 11 min. b & w Produced by Coronet. 1953
Children learn how rain helps. Rental $2.00

OUR ANIMAL NEIGHBORS. (3NO439) 11 min. color Produced by Coronet. 1963
Features cottontail rabbit, gray squirrel, fox squirrel, chipmunk, gopher, deer, meadow mice, shrew, mole and bat. Rental $3.25

PLANTS AND ANIMALS OF THE NORTH AMERICAN DESERT. (3NO204) 11 min. Color Gateway Productions. 1964
Animals include desert tortoise, butterflies, lizards, birds and snakes. Adaptation of animal life to their surroundings. Rental $3.25

ROCKS. (2GO007) 8 min. b & w Produced by Gateway Productions. 1952
Film presents various types of rocks around a swimming hole. Rental $2.00

ROCKS: WHERE THEY COME FROM. (2GO008) 11 min. b & w Produced by Coronet. 1963
Presents demonstrations to show how rocks were formed through the effects of water, heat and pressure. Rental $2.00

SNAILS: BACKYARD SCIENCE. (3NO457) 11 min. color Produced by Film Associates. 1962
Life activities of the common garden snail. Differentiates between water and land snails.

SPRING BRINGS CHANGES. (3NO458) 11 min. color Produced by Campus Films Productions. 1961
Illustrates changes in plants and animals.

PRIMARY GRADES
FILMSTRIPS

THE ANIMAL WORLD SERIES. Produced and distributed by McGraw-Hill Textfilms. 1969. 8 filmstrips with guide. Order no. 643160. Each $7.00.

Individual filmstrip titles:

How Animals Are Alike. Order no. 643161.
To develop an awareness of similarities between animals and man.

What Animals Need. Order no. 643162.
How animals breathe, drink and eat to develop energy.

How Animals Start Life. Order no. 643163.
Some animals are born, some are hatched and all need differing amounts of care.

How Animals Use Their Senses. Order no. 643164.
Focus is on the interpretation of the environment through the use of the senses.

How Animals Behave. Order no. 643165.
Distinction between learned and unlearned behavior.

Life in Water. Order 643166.
Life exists as part of a total community.

Life on Land. Order no. 643166.
Shows how different plants and animals adapt to different environments.

Conserving Plants and Animals. Order no. 643168.
Man's dependence on plants and animals is illustrated.

ADVENTURES IN NATURE. Produced and distributed by Jam Handy Organization. 1969. 9 filmstrips. Series $57.75; Each $6.95. Order number unknown.

Individual filmstrip titles:

A Walk Around a Pond. Part I, II, and III.
A Walk in a Field.
A Walk in the City.
A Walk in the Sand Dunes.
A Walk in the Woods. Part I, II.
All of the filmstrips are used to demonstrate the adaptation of plants and animals to their environment. Useful for increasing motivation for field trips.

EXPLORING OUR WONDERFUL WORLD. Produced and distributed by Troll Associates. 1969. 2 filmstrips. Each $6.00. Order number unknown.

Individual filmstrip titles:

Follow the Rainbow and Catch the Colors.
Introduces ideas about light and color in nature.

A Tree Grows Up.
Presents general characteristics of trees. Useful for projects and field trips.

EXPLORING THE SEASONS. Produced and distributed by Imperial Film Company, Inc. 1970. 4 sound filmstrips with phonodisc for use with manual or automatic projector. Series $44.00; Each $11.00; With tape cassettes $51.80; Each $12.95.

Individual filmstrip titles:

Exploring the Seasons: Autumn.

Exploring the Seasons: Spring.
Exploring the Seasons: Summer.
Exploring the Seasons: Winter.
Describes the inter-relationships between living things and their environment. Color photography is used with muted background music.

THE FOUR SEASONS IN THE CITY. Produced and distributed by Hudson Photographic Industries, Inc. 1969. 4 sound filmstrips with phonodisc and guide for use with either manual or automatic projector. Series $57.00; Each $15.00.

Individual filmstrip titles:
Fall Comes to the City.
The Sights and Sounds of Winter.
Spring Comes to the City.
The Sights and Sounds of Summer.
Time-lapse photography is used in portraying seasonal changes. The city is a large northern urban area.

HELPFUL INSECTS. Produced by Media Development Association. Order from Encyclopaedia Britannica Educational Corporation. 1968. 5 filmstrips. Each $6.00.

Individual filmstrip titles:
Cloth from Insects: The Story of Silk.
Traces development of the worm from the egg to maturity.
Food from Insects: The Story of Honey.
Production of honey.
How Insects Help Plants Grow.
Describes pollination by insects.
How Insects Protect Plants.
Shows how the lady-bird beetles and other insects feed on plant eating insects.
Insects and You.
Overview of the ways that insects benefit man.

THE OCEAN IS MANY THINGS. Produced and distributed by Churchill Films. 1969. 6 filmstrips. Series $39.00.

Individual filmstrip titles:
Learning About the World Beneath the Waves.
Introduction to living things in the ocean.
Looking at the Ocean.
Portrays the ocean in a variety of moods.
The Ocean Is Fun.
Features the main recreational uses of the ocean.
The Ocean Is a Home for Plants and Animals.
Unusual and colorful plant and animal life of the ocean.
The Ocean Is Jobs for People.
Occupations dependent on the ocean are described.
The Ocean Is Transportation.
Describes various kinds of ocean vessels and their functions.

PERCEPTION: BIRDS. Produced and distributed by Educational Dimensions Corporation. 2 sound filmstrips with phonodisc and guide for use with manual or automatic projector. $30.00.

Filmstrips have no narration, but music by Sibelius is used as a background. The filmstrips are composed of photographs of birds from all over the world. Recommended by Booklist as an unusual and stimulating adventure for use from pre-school to adult.

PLANT RESPONSES TO ENVIRONMENTAL CONDITIONS. Distributed by Bailey-Film Associates. 1969. 5 filmstrips. Series $38.00; Each $8.00.

Individual filmstrip titles:

Response to Gravity. Order no. 394002.
Response to Light. Order no. 394001
Response to Temperature Change. Order no. 394004.
Response to Touch. Order no. 394003.

Each filmstrip contains important questions designed to lead the student to making correct conclusions.

INTERMEDIATE GRADES
FILMS

All films listed in this section are available from the University of Minnesota. When ordering films, please use the film order number which has been included.

Some of the films are also available for free distribution through the Department of Conservation.

ADAPTATIONS OF PLANTS AND ANIMALS. (4NO316) 15 min. b & w Produced by Coronet. 1957
Adaptations of living things to their environment for food getting and protection are stressed. Rental $2.50

ADAPTING TO CHANGES IN NATURE. (3NO317) 10 min. color Produced by Journal Films. 1963
Changes in living things as they adapt. Rental $3.00

ARCTIC BORDERLANDS IN WINTER. (3NO164) 11 min. color Produced by Coronet. 1948
Adaptation of plants and animals to area just south of Arctic Circle where tundra meets the dwarfed trees of the northern forest. Rental $2.00

CONSERVING OUR SOIL TODAY. (2ZO014) 11 min Produced by Coronet. 1960
Techniques and experiments in soil conservation. Also available free from Dept. of Conservation. Rental $2.00

CONSERVING OUR WATER RESOURCES TODAY. (2ZO015) 11 min. b & w Produced by Coronet. 1962
Domestic, agricultural and industrial uses of water. Also available free from the Dept. of Conservation. Rental $2.00

CRY OF THE MARSH. (5NO955) 12 min. color Distributed by Bill Sndyer. 1970
A hauntingly beautiful and disturbing film. Teachers should preview and use with care. Rental $4.85

FAMILY OF GHANA. (6SO019) 29 min. b & w Produced by McGraw. 1958
Picture of life in a fishing village on the coast of Ghana. Rental $5.00

FAMILY OF INDIA. (4GO622) 13 min. b & w Produced by McGraw. 1955
Life of a middle class Hindu family. Rental $2.50

FAMILY OF TOKYO. (5S0020) 15 min. color Produced by Pat Dowling Pictures. Date unknown

Shows Japanese family customs. Rental $4.75

FAROE ISLANDS FAMILY. (2G0188) 11 min. b & w Produced by EB. 1953

Shows community life in a severe and isolated environment. Rental $2.00

FIRE. (2P0048) 11 min. b & w Produced by McGraw-Hill. Date unknown

Elements necessary for fires. Basic introduction. Rental $2.00

FIRE AND OXIDATION. (3P0049) 11 min. color Produced by Coronet. 1964

Shows how the three requirements for combustion are related to each other through the process of oxidation. Rental $3.25

FIRE ON THE LAND. (7Z0018) 30 min. color Produced by MF. Date unknown

Forest fire rages out of control. Damage to environment shown. Also available free from the Department of Conservation. Rental $3.00

GEOGRAPHY OF SOUTH AMERICA: THE CONTINENT. (4G0593) 13 min. color Produced by Coronet. 1961

Shows the main geographical features and demonstrates the relationship of how people make their living to the land. Rental $2.50

HAVE LITTER-WILL TRAVEL. (5S0260) 15. min. color Produced by Dynamic Films, Inc.

Imaginative treatment of litter disposal problem. Rental $4.75

HOMES AROUND THE WORLD. (2S0049) 15 min. b & w Produced by Coronet. 1963.

Shows how kinds of homes built in different regions of the world depend on the climate and the materials available for building. Rental $2.00

HOMES AROUND THE WORLD. (2S0048) 15 min. b & w Produced by United World. 1957

Similar to the above. Rental $3.35

HOUSE OF MAN-OUR CHANGING ENVIRONMENT. (5N084) 17 min. color Produced by EB. 1965

Discusses waste of natural resources. Compares exploitation and conservation. Also available free from the Department of Conservation. Rental $5.40

LAPLANDERS. (2G0225) 11 min. b & w Produced by EB. 1952

Life of the people who depend on the reindeer as a beast of burden and for food. Activities in summer and winter homes. Rental $2.00

LIFE ALONG THE WATERWAYS. (2N0180) 11 min. color Produced by EB. 1962

Demonstrates the life support provided by the stream for plants, fish, birds and other animals. Rental $3.25

LIFE BETWEEN TIDES. (3N0181) 11 min. color Produced by EB. 1963
Shows a variety of animals and plants on stretch of shoreline on the coast of Washington. Relationship between plants, animals and their marine environment. Rental $3.25

LIFE IN A CUBIC FOOT OF AIR. (2N0409) 11 min. b & w Produced by Coronet. 1958
Examines various living forms such as yeast plants, molds, bacteria, pollen grains. Includes composition of air and the non-living matter in it. Rental $2.00

LIFE IN A CUBIC FOOT OF SOIL. (2N0407) 11 min. b & w Produced by Coronet. 1963
Relationship between soil, plants and animals, and the importance of soil to life. Rental $2.00

LIFE IN A VACANT LOT. (3N0182) 10 min. color Produced by EB. 1966
Studies the emergence of a living community on a newly cleared vacant lot. Rental $3.25

LIFE IN AN OASIS-NORTH AFRICA. (2G0068) 11 min. b & w Produced by Coronet. 1962.
Irrigation farming, the building of houses of mud bricks and the constant fight against wind and sand. Rental $2.00

LIFE IN COLD LANDS - ESKIMO VILLAGE. (2G0669) 11 min. b & w Produced by Coronet. 1956
Common activities of the Eskimo family. Rental $2.00

LIFE IN HOT RAIN FORESTS - AMAZON BASIN. (4G0598) 15 min. b & w Produced by Coronet. 1961
Adaptation of people to rain forest. Rental $2.50

LIFE IN THE ALPS - AUSTRIA. (2G0229) 11 min. b & w Produced by Coronet. 1958
Agriculture on an Alpine terrain. Rental $2.00

LIFE IN THE OCEAN. (5N0186) 15 min. color Produced by Film Associates. 1955
Describes plants and animals of shallow water and ocean depths. Included are seaweed, anemone, sea urchin, sea cucumber, sea worm, cowrie, etc. Rental $4.75

LIFE IN THE SEA. (3N0187) 15 min. color Produced by EB. 1958
Divides sea life into three groups: plankton, bottom dwellers and free-swiming animals. Food chain is described. Rental $3.25

LIFE ON A DEAD TREE. (3N0189) 10 min. color Produced by Film Associates. 1957
The tree is found to be the home of lizards, beetles, crickets, slugs, fungus plants, tree salamanders, ants, gopher snakes and many other living things. Rental $3.25

LIFE ON THE TUNDRA. (5N0190) 14 min. color Produced by EB. 1965
Activities of nesting birds, musk-oxen and caribou are revealed. Rental $4.75

LITTERBUG. (3S0281) 8 min. color Produced by Walt Disney Productions. 1962

Animated film showing results of litter in cities, on the beach and in the mountains. Rental $3.25

MAN, BEAST, AND THE LAND. (1NO845) 52 min. color Produced by NBC. 1968

Relationships between plants and animals on the Serengeti plains of Africa. Rental $14.50

MAN MAKES A DESERT. (3Z0024) 10 min. color Produced by Film Associates. 1964

Grassland becomes desert through abuse. Rental $3.25

MAPS - AN INTRODUCTION.(5G0024) 12 min. color Produced by Indiana U. 1963

Uses a class constructed model of their community. Rental $3.25

MAPS OF OUR LOCALITY. (3G0031) 11 min. color Produced by Bailey. 1965

Terminology of land and water forms is introduced through a field trip to a reservoir. Rental $3.25

MAPS OF OUR SCHOOL. (3G0032) 8 min. color Produced by Bailey. 1965

Introduction to size relationships, symbols and direction. Rental $3.25

THE MARSH COMMUNITY. (3N0927) 11 min. color Produced by EB. 1966

Illustrates living things and their relationship to the marsh. Questions what will happen as the marsh fills in. Rental $3.95

NATURE'S HALF ACRE. (7N0196) 30 min. color Produced by Walt Disney Productions. 1953

Shows the inhabitants of the grass roots world and how balance of nature is maintained. Available free from the Department of Conservation. Rental $10.00

ONE MATCH CAN DO IT. (2Z0032) 11 min. b & w Produced by Bailey. 1948

A primer on forest and brush fires. Rental $2.00

OUR SOIL RESOURCES. (2Z0034) 11 min. b & w Produced by EB. 1947

Formation of the soil, soil zones and conservation aspects of soil control. Rental $2.00

POND INSECTS. (2N0447) 11 min. b & w Produced by EB. 1932

Includes the diving water beetle, mayfly and dragonfly. Life cycles and events in life of each insect are shown. Rental $2.00

READING MAPS. (2G0036) 11 min. b & w Produced by EB. 1961

Meaning, uses, making of maps for the beginner. Rental $2.00

SEASONAL CHANGES IN TREES. (2N0123) 11 min. b & w Produced by Coronet. 1949

Classification, seasonal aspects and careful observation are stressed. Rental $2.00

VACANT LOT. (5NO219) 20 min. color Produced by the International Film Bureau. 1961.

Interrelationships of wild flowers, plant-eating insects and their predators, amphibians, reptiles, song birds and mannals are studied. Rental $6.65.

WATER FOR THE PRAIRIES. (5GO138) 20 min. color Produced by the National Film Board of Canada.

Conservation of water through the development of watersheds in the Rocky Mountains. Rental $6.65.

FILMSTRIPS

AGRICULTURE AND INDUSTRY. Produced and distributed by McGraw-Hill. 1969. 8 filmstrips with guide. Series $57.50; Each $7.75. Order no. 641290.

Individual filmstrip titles:

Agriculture and Industry: Building Houses. Order no. 641297.
Agriculture and Industry: Cotton and Wool Fibers. Order no. 641294.
Agriculture and Industry: Dairy and Beef Cattle. Order no. 641293.
Agriculture and Industry: Manufacturing Clothing. Order no. 641296.
Agriculture and Industry: Modern Agriculture. Order no. 641291.
Agriculture and Industry: Vegetables and Fruits. Order no. 641292.

All of the filmstrips show how specific technological advances have changed the patterns of growth, manufacturing, distribution and storage. The move from small farms to urban centers is illustrated.

CONSERVATION: SAVING OUR ENVIRONMENT. Produced and distributed by Troll Associates. 1970. 4 filmstrips. Each $6.00.

Individual filmstrip titles:

Irrigation.
History and development of irrigation in various cultures.

Pollution.
How pollution occurs, what it does to the environment and the steps that are being taken to curb it.

Saving Our Land.
Traces the destruction of natural resources by exploitation and unwise farming methods.

Saving Our Wildlife.
Explores how wildlife can be preserved.

THE SEED PLANTS. Produced and distributed by Coronet. 1969. 8 sound filmstrips, with 4 phonodiscs and user's guide, for use with automatic or manual projector. Series $65.00; Each $7.50; Each phonodisc $4.00. Order no. S125.

Individual filmstrip titles:

The Seed Plants: The Major Kinds. Order no. S125-1.
Classifies seed plants into gymnosperms and angiosperms.

The Seed Plants: Their Uses. Order no. S125-2.
Studies products and their economic importance to man.

The Seed Plants: Roots and Stems. Order no. S125-3.
Structure, function and types of roots and stems.
The Seed Plants: Leaves and Their Work. Order no. S125-4.
Photosynthesis and its role in the life of the plant.
The Seed Plants: How Flowers Make Seeds. Order no. S125-5.
Reproductive structures, pollination and fertilization are shown.
The Seed Plants: Seeds and Their Dispersal. Order no. S125-6
Types of seeds and conditions that affect their growth.
The Seed Plants: How They Sprout and Grow. Order no. S125-7.
Germination, dormancy and ptopism in the growth of plants.
The Seed Plants: Their Adaptations. Order no. S125-8.
Accommodation of the structure and functions of plants to various environments.

SOUTH AMERICAN FAMILIES. Produced and distributed by Coronet Films. 1970. 6 sound filmstrips, with 3 phonodiscs and guide for use with manual or automatic projector. Series $50.00; With tape cassettes $65.00.

Individual filmstrip titles:
Cesar and Carlos of Peru.
Jose of the Pampa.
Lorenzo of Bolivia.
Mariano and Lucho of Ecuador.
Mario and Jonas of Brazil.
Victor of the Amazon.
The filmstrips describe the food, customs, games, activities, schools and occupations of men and women and show how life is influenced by climate, resources and relative poverty or wealth of the family.

SYSTEMS IN OUR CITY. Produced by McGraw-Hill/University Films. Distributed by McGraw-Hill. 1969. 7 filmstrips. Series $49.50; Each $7.75. Order no. 641280.

Individual filmstrip titles:
Systems in Our City: Electricity. Order no. 641287.
Systems in Our City: Gas. Order no. 641286.
Systems in Our City: Manufacturing. Order no. 641282.
Systems in Our City: Service Workers. Order no. 641285.
Systems in Our City: Water and Sewage. Order no. 641288.
Stresses the specialization and interdependence of producers, distributors and service workers.

THE WILD YOUNG DESERT. Produced and distributed by Lyceum Productions. 1970. Based on the book with the same title by Ann Atwood. 2 sound filmstrips, each with phonodisc for use with manual or automatic projector. Set $30.00; With tape cassettes $32.00; With book included $32.55.

Individual filmstrip titles:
The Making of a Desert.
Shows th roles of volcanic action, mountains, wind and water in producing the desert.
Life Conquers the Desert.
Examines the highly specialized ecological relationship existing among plants and animals.

JUNIOR-SENIOR HIGH SCHOOL FILMS

Most of the films in this section are available from the University of Minnesota. Addresses of free film distributors are given at the end of the list.

MAN AND NATURAL RESOURCES

APPLIED ECOLOGY. (7NO162) 28 min. color Produced by McGraw. 1961.
Use and misuse of the soil. Describes measures designed to reduce waste. sca Rental $12.85.

BULLDOZED AMERICA. (6SO648) 25 min. b & w Produced by CBS. 1965.
Report on the ravishing of nature by commercial interests. jsca Rental $4.10

CONSERVATION AND BALANCE IN NATURE. 18 min. color Produced by International Film Bureau. 1963.
Describes the balance in ecological systems and man's effect on them. js Available from the Minnesota Department of Conservation.

CRY OF THE MARSH. (5NO955) 12 min. color Distributed by Bill Snyder Films. 1970.
A hauntingly beautiful essay on destruction of Minnesota's wetlands. jsca Rental $4.85

DISTRIBUTION OF PLANTS AND ANIMALS. (5NO175) 16 min. color Produced by EB. 1963.
Maps are used to illustrate range of various species of plants and animals throughout the world. sc Rental $6.65.

ECOLOGY OF MAN. (7NO767) 30 min. color Produced by Graphic Curriculum, Inc. n.d.
Dr. Loren Eiseley discusses man's need to learn an ethical attitude toward nature in order that his descendants may survive. jsca. Rental $7.70.

FACTORS NECESSARY FOR LIFE. (5NO907) 16 min. color Produced by the American Institute of Biological Sciences. 1967.
Emphasizes conditions of temperature, water, salinity, light and other factors necessary to support life. sc Rental $7.50.

GREEN CITY. (7NO919) 23 min. color Produced by Stuart Finley Films. 1963.
Stress is on conservation of natural beauty by city planners.

IRRIGATION TO MAKE THE DESERT BLOOM. (4BO112) 15 min. b & w Produced by McGraw. n.d.
The use of irrigation in the Southwest is illustrated. Traces development of irrigation from ancient days. jis Rental $2.50.

THE HOSTILE ENVIRONMENT. (3NO934) 24 min. color Produced by NBC. 1968.
Explores what man can learn from animals in adapting himself to changes in the environment ijsca Rental $8.15.

MAKING THE DESERT GREEN. (3BO111) 16 min. color Produced by EB. 1966.
Shows how a modern irrigation system is built and how it works. ij Rental $5.30.

MAN MAKES A DESERT. (3ZO024) 10 min. color Produced by Film Associates. 1964.
Destruction of grassland by overgrazing and plowing. The methods used to attempt to restore the grass are shown. ijs Rental $3.25.

MAN USES AND CHANGES THE LAND. (350915) 11 min. color Produced by Coronet. 1967.
Man can change the land but he must realize that the land is a limited resource. ijsca Rental $3.50.

MARSH WATERS--WASTE OR WEALTH. (5ZO026) 15 min. color Produced by the University of Minnesota. 1953.
Out-dated film designed to encourage the land-owner to refrain from wetland drainage. Also available from the Department of Conservation. sc Rental $4.75.

THE MARSH COMMUNITY (3NO927) 11 min. color Produced by EB. 1966.
Illustrates living things dependent on the marsh and asks what will happen as the marsh continues to fill in. ij Rental $3.95.

MYTHS AND PARALLELS: THE STORY OF CONSERVATION. (6NO766) 27 min. b & w Produced by Association Films. 1964.
Explores the myth of infinite abundance, scientific infallibility and inevitable destruction. sca Rental $4.15. Available from the Department of Conservation.

OUR VANISHING LAND. (7NO762) 24 min. color Produced by McGraw. 1967.
Emphasizes the interest of the Smithsonian Institution in the conservation of natural resources. ijs Rental $9.85.

OUR ENDANGERED WILDLIFE. (7NO792) 24 min. color Produced by NBC. 1968.
OUR ENDANGERED WILDLIFE. (7NO793) 24 min. color Produced by NBC. 1968.
Identifies species which are in danger of extinction and presents information on the role of the government agencies involved in saving them. Rental Part I $8.20; Part II $7.65.

PLANT AND ANIMAL DISTRIBUTION. (7NO199) 28 min. color Produced by McGraw. 1961.
Defines population, community and ecosystem. North American biomes, mountain zonation and disjunctive distribution are illustrated. sca Rental $12.85.

PLANT-ANIMAL COMMUNITIES: CHANGING BALANCE OF NATURE. (2NO201) 11 min. b & w Produced by Coronet. 1963.
Factors which determine the balance of a community are described. js Rental $2.00.

PLANT-ANIMAL COMMUNITIES: INTERRELATIONSHIPS. (5NO202) 13 min. color Produced by Coronet. 1965.
Film shows how survival of the species may be dependent on the interrelationships developed. js Rental $4.75

PLANT-ANIMAL COMMUNITIES: PHYSICAL ENVIRONMENT. (3NO203) 11 min. color Produced by Coronet. 1964.
Four types of biomes are examined and their ecological systems revealed. js Rental $3.25.

POND AND THE CITY. (5NO820) 16 min. color Produced by Willard Van Dyke. 1965.
Designed to focus attention on responsible use of resources. js Rental $5.40.

WATER FAMINE. (6SO663) 60 min. b & w Produced by Cinema Films, Inc. 1964
Problems of water supply and its relation to world growth, health and industry. sca Rental $11.35.

POPULATION EXPLOSIONS

BIRTH CONTROL--PARTS I, II. (6S0546) 60 min. b & w Produced by National Educational Television. 1966.
Comprehensive look at the legal, medical, moral and social aspects of the birth control issue. Adult level Rental $9.85.

BRAZIL: THE GATHERING MILLIONS. (6S0760) 30 min. b & w Produced by National Educational Television. 1965.
The problem of underpopulation in terms of total land area but over-population in terms of available natural resources is explored. sca Rental $5.35.

CAN THE EARTH PROVIDE. (6B0027) 28 min. b & w Produced by McGraw. 1960.
Somewhat optimistic view of the ability of science to find the answers to the food problem. jsca $5.00.

EUROPEAN EXPERIENCE. (6H0497) 30 min. b & w Produced by Indiana University. 1965.
Historical developments leading to the present demographic condition. sca Rental $4.85.

FEEDING ONE-FOURTH OF THE HUMAN RACE. (5S0802) 16 min. color Produced by McGraw. n. d.
Survey of the farming economy in China. Indicates the problems existing and which must be solved before food production will eliminate famine. ijs Rental $5.40.

INDIA: WRITING ON THE SAND. (7S0806) 30 min. color Produced by National Educational Television. 1965.
Discusses India's greatest problem; population growth which outstrips food production. sca Rental $8.85.

THE MOUNTING MILLIONS. (0S0902) 54 min. b & w Produced by National Educational Television.
Depicts life in modern India, focusing on the use of modern technology to catch up. sca Rental $3.15.

PEOPLE BY THE BILLIONS. (6S0712) 28 min. b & w Produced by McGraw. 1961.
Implications of the population explosion are explored. sca Rental $5.00.

POPULATION ECOLOGY. (5N0207) 19 min. color Produced by EB. 1963.
Explains some of the factors which limit growth of plant and animal populations in their natural environments, and considers causes of the human population explosion. sc Rental $6.65.

POPULATION ECOLOGY. (7NO206) 28 min. color Produced by McGraw. 1961.
Demonstrates the use of population growth curves and uses models to illustrate effects of competition and predation. sca Rental $12.85.

POPULATION PATTERNS IN THE UNITED STATES. 11 min. b & w Produced by Coronet. 1961.
Based on the 1960 census. Students might use information given to compare with the 1970 census to determine if patterns are continuing. js Rental $2.00.

STANDING ROOM ONLY. (7S0908) 25 min. color Produced by McGraw.
Explores the need for population control and includes a brief survey of current research. sca Rental $7.70.

UPROOTED NATION. (5S0833) 22 min. color Produced by Churchill Film Productions. 1965.
Shifts of population from the farms to the city and ramifications of constant internal migration. sc Rental $5.30.

PROBLEMS OF THE CITIES

BIG CITY - 1980. (6S0508) 55 min. b & w Produced by Carousel Films. n.d.

Prediction that the U.S. will be 95% urban by 1980. Two cities used as models for planning are Brazilia and Philadelphia. Rental $14.60.

BUILDING BETTER CITIES. (7s0510) 30 min. color Produced by Chamber of Commerce of the U.S. n.d.

Adult film which suggests some solutions to problems of cities. Rental $10.50.

CHANGING CITY. (5S0511) 16 min. color Produced by Campus Films Production. 1964.

Presents problems of proper suburban land use, transportation and isolation, inner city problems of slums, urban renewal and population density. Rental $6.65. jsc

CITIES OF THE FUTURE. (7F0438) 25 min. color Produced by McGraw. 1967.

Suggests possible solutions to problems through examples of Brazilia, Philadelphia, Lincoln Road Mall of Miami, Reston (Va.) and Place Ville Marie of Montreal. jsca Rental $9.35.

CITIES--THE RISE OF NEW TOWNS. (6S0513) 60 min. b & w Produced by National Educational Television. 1966.

Discusses the building of entirely new cities as an answer to urban problems. ca Rental $9.85.

THE CITY. (6S0514) 28 min. b & w Produced by the Minnesota Museum of Natural History. n.d.

Traces the development of cities from the size of villages to the probable city of the future. Stress is on the importance of city planning. jsc Rental $5.00.

CITY AND ITS REGION. (6S0515) 28 min. b & w Produced by Sigma Educational Films. 1963.

Examines the problem of how cities can live harmoniously with the countryside around them. Based on book by Lewis Mumford. ca Rental $6.00.

CITY AND THE FUTURE. (6S0516) 27 min. b & w Produced by Sigma Educational Films. 1963.

Presents question of how to turn low grade urban sprawl into regional cities. ca Rental $6.00.

CITY AS MAN'S HOME. (6S0518) 28 min. b & w Produced by Sigma Educational Films. 1963.

Personal standards of living rise while city standards deteriorate. The film examines ways of improving the city. ca Rental $6.00.

CITY--CARS OR PEOPLE? (6S0518) 28 min. b & w Produced by Sigma Educational Films. 1963.
Probes the problems created by private automobiles. ca Rental $6.00.

CITY--HEAVEN AND HELL. (6S0519) 28 min. b & w Produced by Sigma Educational Films. 1963.
Examines reasons for the creation of the first cities and the forces that now threaten destruction of the cities. ca Rental $6.00.

FUR-LINED FOXHOLE. (6S0521) 30 min. b & w Produced by National Educational Television. 1961.
Demonstrates the rise of suburbs as families seek a little patch of space for themselves. Focus is on Wheeling, a suburb of Chicago. jsca Rental $5.00.

HOW THINGS GET DONE. (6S0522) 30 min . b & w Produced by National Educational Television. 1964.
Presents pressures and policies of one urban renewal plan. jsca Rental $5.00.

HOW TO LIVE IN A CITY. (6S0523) 30 min. b & w Produced by National Educational Television. 1964.
Are monotonous architectural ideas making conformists out of city dwellers jsca Rental $5.00.

HOW TO LOOK AT A CITY. (6S0524) 30 min. b & w Produced by National Educational Television. 1964.
Human scale, density and variety are introduced as measures of quality of a city. jsca Rental $5.00.

MEGALOPOLIS--CRADLE OF THE FUTURE. (4S0498) 22 min. Produced by EB. 1963.
The urban sprawl from Boston to Washington,D.C.,is examined area by area and attention is focused on planning future growth. jsca Rental $3.35.

METROPOLITAN IMPROVEMENTS: THEIR IMPACT ON PEOPLE. (6S0527) 28 min. b & w Produced by KTCA.
Problems of growth in the Twin City area. Focus is on displaced persons who have been forced out by highway construction, redevelopment and institutional expansion. jsa Rental $3.00.

METROPOLITICS: CRAZY QUILT OR GRASS ROOTS DEMOCRACY. (6S0528) 28 min. b & w Produced by KTCA.
Introduces the problems which arise from too much fragmentation of governmental units. Film will serve as historical background for consideration of Twin City problems. Rental $3.00.

MIDDLE ATLANTIC SEABOARD REGION--GREAT CITIES MEGALOPOLIS. (5G0304) 18 min. color Produced by McGraw. 1963.
Describes development of the megalopolis from colonial times to the present. ijs Rental $6.65.

ORGIN AND GROWTH OF THE TWIN CITIES. (6S0530) 28 min. b & w
Produced by KTCA.
Historical influences on Minneapolis and St. Paul are described. sca Rental $3.00.

PLANNING FOR THE TWIN CITIES METROPOLITAN AREA. (6S0531) 28 min. b & w
Produced by KTCA.
Guest is former director of the Twin Cities Metropolitan Planning Commission. sca Rental $3.00.

PRIVATE DREAM--PUBLIC NIGHTMARE. (6S0784) 30 min. b & w Produced by National Educational Television. 1964.
Questions whether a well planned suburban community can be developed by private enterprise. Focus is on Eldorado Hills, California. sca Rental $5.00.

RUN FROM RACE. (6S0786) 30 min. b & w Produced by National Educational Television. 1964.
Why do people react as they do when a neighborhood begins to integrate. Focus is on redevelopment in Philadelphia. sca Rental $5.35.

SMALLTOWN, U.S.A. (6S0814) 27 min. b & w Produced by NBC. 1965.
Examines population, growth and reluctance to meet the challenge of a changing way of life in three rural towns. jsa Rental $4.65.

TENEMENT. (8S0830) 40 min. b & w Produced by CBS. 1967.
Life in a Chicago slum dwelling. sca Rental $6.25.

THREE CURES FOR A SICK CITY. (6S0533) 30 min. b & w Produced by National Educational Television. 1964.
Presents problems and possible solutions devised in the rebuilding of Washington, D.C. jsca Rental $5.00.

TROUBLED CITIES--PART I, II. (8S0831) 60 min. b & w Produced by National Educational Television. 1966.
Examines problems of four metro areas New York, Detroit, Boston, and Newark as they face problems of inadequate housing, low standards of living, racial tension and crime. sca Rental $9.85.

URBAN SPRAWL. (5S0535) 15 min. color Produced by Arthur Barr Productions. 1960.
Defines the problems created by uncontrolled growth and illustrates the need for long range planning. sca Rental $4.75.

WHAT DO YOU TEAR DOWN NEXT? (6S0536) 30 min. b & w Produced by National Educational Television. 1964.
Examines the rationale behind the reaction of people learning that old neighborhoods are to be torn down for progress. sca Rental $5.00.

YEAR 1999 A.D. (7S0900) 27 min. color Produced by Ford Motor Company. 1968.
A look at the city of the future where life is simplified and regulated by the computer. Rental $3.50

POLLUTION

AIR POLLUTION: TAKE A DEEP DEADLY BREATH. (1N0917) Part I, II, III. 54 min. Produced by ABC. 1967.

Part I, Day to day difficulties of an emphysema patient and his family: Part II, Highlights of a federal interstate abatement conference. Part III, The stake all citizens have in the fight to clean the air. sca Rental $14.40. Also available at no charge from the National Medical A-V Center.

BEARGRASS CREEK. (5D0211) 22 min. color Produced by Stuart Finley. 1961

Illustrates water pollution caused by community failure to treat sewage, industrial wastes, etc. sca Rental $8.35.

CONTAMINATION OF WATER SUPPLIES BY BACK SIPHONAGE. (4D0212) 19 min. b & w Produced by University of Minnesota. n.d.

Contamination of drinking water by faulty plumbing. Laboratory model is used to demonstrate how contamination could occur. sca Rental $3.85.

CRISIS ON THE KANAWHA. (7D0213) 23 min. color Produced by Stuart Finley. 1962.

The pollution caused by industrial wastes and the need for industry and community cooperation in cleaning up the river is indicated. jsca Rental $9.35.

A DAY AT THE DUMP. 15 min. color Produced by Stuart Finley. 1967.

Presents a day at the Kenilworth dump, emphasizing the necessity for regional solutions to solid waste disposal problems. Available from the National Medical A-V Center. sca

DON'T LEAVE IT ALL TO THE EXPERTS. 16 min. color Produced by the National Air Pollution Control Administration. Date unknown.

Explains the major provisions of the Federal Clean Air Act. sca Available from the National Medical A-V Center.

ILL WINDS ON A SUNNY DAY. 28 min. color Produced by the U. S. Senate Committee on Public Works. 1966

Discusses the growth of air pollution from a local problem to one of national concern. Political figures include Edmund S. Muskie, Jennings Randolph and J. Caleb Boggs. sca Available from the National Medical A-V Center.

IT'S THE ONLY AIR WE'VE GOT. 25 min. color Produced by WTAE-TV Pittsburg. 1967.

The fight for smoke control began in the 1940's for Pittsburg. Stress is on the threat to health created by the continuing air pollution. sca Available from the National Medical A-V Center.

GEORGE WASHINGTON'S RIVER. (7D0214) 29 min. color Produced by the U.S. Department of Agriculture. 1959.
Suggests ways of preventing pollution from industrial wastes and of restoring the river to recreational use. jsca Rental $12.85

LAKES AND STREAMS OF MINNESOTA. (5D0215) 17 min. color Produced by the University of Minnesota. 1947.
A badly out-dated film whose use is restricted to presenting a historical viewpoint of pollution in Minnesota. ca Rental $5.35.

THE LIVING FILTER. 20 min. b & w Produced by Pa. State University. 1965.
Renovation of waste water by extensive spraying. sca Available from the Minnesota Department of Health.

THE OHIO RIVER, THE BACKGROUND FOR SOCIAL STUDIES. (3G0738) 11 min. color Produced by Coronet. 1967.
Historical use of the river and the modern problems of pollution, flood control and increasing traffic. ijs Rental $3.50.

THE POISONED AIR. PART I, II. (6D0210) 50 min. b & w Produced by CBS. 1966.
Federal officals and representatives of the automobile and petroleum industries discuss what can be done about air pollution. sca Rental $9.85. Available free from the National Medical A-V Center.

THE RIVER MUST LIVE. 21 min. color Produced by Shell Oil Company.
Causes, effects and solutions to water pollution. Order from Shell Oil Company. js School pays cost of mailing.

THE RUN-AROUND. 11 min. color Produced by National TB and Respiratory Disease Assn. 1969.
Animated film traces the efforts of one average man who attempt to track down the sources of air pollution. sca Available from National Medical A-V Center.

SEWERS-GUARDIAN OF COMMUNITY HEALTH. 22 min. b & w Produced by Clay Products.
Protection of health by providing for adequate sewage and industrial waste disposal. sca Available from Minnesota Department of Health.

THE SILENT SPRING OF RACHEL CARSON. 54 min. b & w Produced by CBS.
Presents a wide range of opinion concerning pesticides. sca Available for rental from Contemporary Films, Inc. Cost unknown.

SOMETHING IN THE WIND. 30 min. b & w Produced by KCMO-TV, Kansas City Missouri 1966.
Considers underlying factors causing pollution, primary sources, economic other effects. sca Available from National Medical A-V Center.

THE THIRD POLLUTION. 23 min. color Produced by Stuart-Finley. 1966.
Problems of solid waste disposal and its relationship to air pollution and water contamination. sca Available from the Minnesota Department of Health.

THIS BUSINESS OF AIR. 30 min. color Produced by KSD-TV, St. Louis. 1966.
Discusses air pollution as an interstate problem. Focuses on the St. Louis metro area through interviews with government officials. sca
Available from the National Medical AV Center.

TO CLEAR THE AIR. 22 min. color Produced by the American Petroleum Institute. 1967.
Demonstrates the role of the individual, industry and government in the fight against air pollution. sca. Available from the Department of Health, the Department of Conservation and the Minnesota Petroleum Council.

WITH EACH BREATH. 30 min. color Produced by the New York State Health Department. 1966
Development of air quality standards. Reveals much of the complexity of the problem. Available from the National Medical AV Center.

WHO KILLED LAKE ERIE? (1NO945) 60 min. color Produced by NBC. Date unknown.
Extent of pollution and its effect on the lake. jsca Rental $18.00.

WILD RIVER. (5NO823) 14 min. color Produced by Educational Horizons. 1967.
Portrays the beauty of wild river regions and demonstrates how easily pollution can occur. Also available from the Department of Conservation. jsca Rental from U. of M. $4.30.

RELATIONSHIP OF MAN TO COMMUNITIES

THE COMMUNITY. (6S0489) 60 min. b & w Produced by Indiana University.
Compares the cultural, educational, religious and physical character of two communities undergoing change. sca Rental $9.85.

DETACHED AMERICANS. (6S0491) 33 min. b & w Produced by Carousel Films. 1964.
Examines apathy in the United States. Takes a critical look at the U.S. family today. sca Rental $5.00.

FUTURISTS. (7S0909) 25 min. color Produced by McGraw. 1967.
Views man's capacity for adaptation to the future. sca Rental $7.70.

HUNTERS. (7S0133) 73 min. color Produced by Contemporary Films. 1958.
Life of the Bushmen of Southwest Africa and the Bechuanaland Protectorate. sca Rental $28.50.

HUTTERITES (6T0022) 27 min. b & w Produced by the National Film Board of Canada. 1964.
Designed to show the true nature of colony life as practiced by these people who hold all things in common. jsca Rental $5.00.

INDIAN AMERICAN. I, II, III. (1S0942) 80 min. color Produced by Tripod. 1970.
Documents the Indian experience during his relationship with the white man. The Indian is shown caught "Between his love for the sacred earth and recognition of the need to become, on his own terms, part of American white society." jsca Rental $25.00.

INDIAN FAMILY OF LONG AGO. (5S0156) 15 min. color Produced by EB. 1957.
Filmed at the Pine Ridge Indian Reservation and Custer State Park in South Dakota. Film centers on the dependence on the buffalo as a way of life. Plains Indian life of 200 years ago. ijs Rental $4.75.

INDIAN INFLUENCE IN THE UNITED STATES. (3S0157) 11 min. color Produced by Coronet. 1964.
Shows how the Indian heritage combines with present day art, music, foods, location of cities, highways and language. ij Rental $3.25.

INDIVIDUAL . (6S0494) 60 min. b & w Produced by National Educational Television. 1965.
Presents the problems of the individual in a large society by focusing on the need of the individual for self-identification. sca Rental $9.85.

POOR PAY MORE, I, II. (6S0901) 60 min. b & w Produced by National Educational Television.
Describes stores and salesmen who take advantage of the poor in New York City. sca Rental $6.10.

PRIMITIVE MAN IN OUR WORLD. (5S0143) color. Produced by Bailey Films. 1960.

Shows the basic pattern of life in central New Guinea. ija Rental $4.75.

SAGA OF WESTERN MAN--1964: Parts I, II. (6H0088) 54 min. b & w Produced by McGraw.

Exploration of the power and the paradoxes of the U.S.: Poverty which exists in the middle of affluence, more money spent on gambling than on education, obsolescence - human as well as mechanical - are issues which are explored. sca. Rental $9.10.

SOCIAL ANIMAL. (6R0040) 29 min. b & w Produced by Indiana University. 1963.

Examines the way man is influenced and changed by society. Influence of group pressure is demonstrated. ca

SOCIAL PROCESS. (4S0503) 20 min. b & w Produced by EB. 1952.

Old film which presents a systematic way of describing and analyzing societies. Seminar on the patterns of behavior common to all cultures. jsca Rental $3.85.

AUDIOVISUAL RENTAL SOURCES

Audio-Visual Extension Service, 2037 University Avenue S.E., University of Minnesota, Minneapolis, Minnesota 55455

Central Minnesota Educational Research and Development Council, 531 Lincoln Avenue S.E., St. Cloud, Minnesota 56301

Extension Visual Education Specialist, Agricultural Extension Service, Institute of Agriculture, St. Paul, Minnesota 55101

Indiana University Audio-Visual Center, Bloomington, Indiana 47401
Attention: NET Film Service.

Minnesota Department of Conservation, Bureau of Information and Education, Centennial Office Building, St. Paul, Minnesota 55101

Minnesota Department of Health Film Library, 717 Delaware Street S.E., Minneapolis, Minnesota 55440

Minnesota Petroleum Council, 446 Builders Exchange Building, Minneapolis, Minnesota 55402.

National Medical AudioVisual Center, Station K Annex, Atlanta, Georgia 30324

Shell Film Library, 450 North Meridan Street, Indianapolis, Indiana 46204

COMPANY ADDRESSES

Association Films, 347 Madison Avenue, New York, New York 10017

Bailey Films, Inc. 6509 De Longpre Avenue, Los Angeles, California 90028

Arthur Barr Productions, 1029 North Allen Avenue, Pasadena, California 91104

Campus Film Productions, 20 East 46th Street, New York, New York 10017

Carousel Films, Inc., 1501 Broadway, New York, New York 10036

Cenco Educational Films, 2600 South Kostner Avenue, Chicago, Illinois 60623

Churchill Films, 662 N. Robertson Blvd., Los Angeles, California 90069

Contemporary Films, Inc. 614 Davis Street, Evanston, Illinois 60201

Coronet Films, 65 East South Water Street, Coronet Building, Chicago, Illinois 60601

Dynamic Films, Inc. 408 Park Avenue, New York, New York 10022

Educational Dimensions Corporation, Box 146, Great Neck, New York 11023

Encyclopaedia Britannica Educational Corporation, 435 North Michigan Avenue, Chicago, Illinois 60611

Film Associates of California, 11559 Santa Monica Blvd., Los Angeles, California 90025

Gateway Productions, 1859 Powell Street, San Francisco, California 94111

Graphic Curriculum, Inc., 619 West 54th Street, New York, New York 10019

Hudson Photographic Industries, Inc. Irving-on-Hudson, New York 10533

Imperial Film Company, Inc., 321 South Florida Avenue, Lakeland, Florida 33802

International Film Bureau, 332 South Michigan Avenue, Chicago, Illinois 60604

Jam Handy Organization, 2821 East Grand Blvd., Detroit, Michigan 48211

Lyceum Productions, P.O. Box 847, Altadena, California 91001

McGraw-Hill Films, 330 West 42d. Street, New York, New York 10036

New York Times Book and Educational Division, 229 West 43d. Street, New York, New York 10036

Pat Dowling Pictures - now distributed by Bailey Films

Sigma Educational Films, P.O. Box 1235, Studio City, California 91604

Stuart Finley, Inc., 3428 Mansfield Road, Falls Church, Virginia 22041

Troll Associates, East 64 Midland Avenue, Paramus, New Jersey 07652

United World - now Universal Education and Visual Arts, 221 Park Avenue South, New York, New York 10003